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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/918,606 | 07/31/2001 | Todd Jordan | HON 1448-021 | 5231 |

8698 7590 07/28/2003

STANDLEY & GILCREST LLP
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DUBLIN, OH 43017

EXAMINER

GORMAN, DARREN W

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

3752

DATE MAILED: 07/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/918,606

Applicant(s)

JORDAN ET AL.

Examiner

Darren W Gorman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 1-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 July 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Election/Restrictions

1. Claims 1-18 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected inventions, there being no allowable generic or linking claim.

Election was made **without** traverse in Paper No. 6.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on May 29, 2002 was filed after the mailing date of the application on July 31, 2001. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Drawings

3. Please refer to Notice of Draftsperson's Patent Drawing Review (PTO-948) included with this Office Action.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 19-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thurner, USPN 4,721,150, in view of Hayes, USPN 5,531,085.

Thurner discloses a device (see Figures 1-3) for supplying a spray emitter (14,16) for a die casting machine (10,12) with a sprayable material for the purpose of cooling, cleansing, and lubricating die casting molds (18,20), the device comprising: a non-pressurized source of sprayable material (26,28, 44), a chamber (110) in fluid communication with the source of sprayable material (see column 6, lines 23-43), a force-exerting cylinder (114) for exerting a force to the chamber (see column 6, lines 47-57), a conduit (50,52) for transporting the sprayable material from the chamber to the spray emitter (see column 7, lines 5-8), a control device in the form of a source of compressed air (126) for actuating the force-exerting cylinder in preparation for operation of the emitter, and a speed control device (142,144) in the form of a reversing flow-control valve for regulating the speed of the force-exerting cylinder (see column 6, lines 47-57), whereby the force-exerting cylinder exerts a force on the material residing in the chamber, thereby causing the pressure of the material to increase before being transported to the emitter, and whereby the device is capable of supplying sprayable material of a substantially predetermined pressure as needed for spraying the molds, even when the pressure of the sprayable material supplied by the source is less than the predetermined pressure (since the sprayable material supplied by the source is non-pressurized). Further, Thurner discloses a one-way mixing valve assembly (38,40), which supplies the chamber (110) with the sprayable material from the source of sprayable material, and thereby also prohibits the flow of sprayable material of increased pressure from the chamber back toward the source (see Figures 3-4; and column 4, lines 44-68; and column 5, lines 1-34). Still further, Thurner discloses a check valve

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between the chamber (110) and the conduit (50,52) comprising a spring (140), connecting member (134) and cover (138) whereby the flow of sprayable material from the chamber is supplied to the emitter (14,16) at a substantially constant pressure, the constant pressure determined by a selected threshold of the check valve assembly (see column 6, lines 15-22; and column 7, lines 16-18).

However, Thurner does not disclose the source of sprayable material as being a pressurized source, and Thurner also does not disclose a solenoid valve in electronic communication with the control device for operating the force-exerting cylinder.

Hayes discloses a die lubricant applicator device (20) (see Figures 1 and 4) having a pressurized source of sprayable lubricant (22), and a solenoid valve (50) in electronic communication with a control means (48) (see column 4, lines 6-32) for actuating and operating a force-exerting cylinder (54) which applies pressure to the sprayable material within a chamber (defined between the end of force-exerting cylinder (54) and valve seat (55) (see Figure 5), the chamber being in fluid communication with the pressurized source of sprayable lubricant, and the chamber also having a conduit (86) fluidly connected thereto, for transporting the sprayable lubricant to a spray emitter (24) (see column 4, lines 6-67; and column 5, lines 1-27).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the non-pressurized source of sprayable material as disclosed by Thurner, with the pressurized source or sprayable material as taught by Hayes, so the source of sprayable material can be located in any convenient orientation to the die casting machine, rather than having to be elevated above the die casting machine, where the source must rely on gravity feed.

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Further, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a solenoid valve in electronic communication with a control device, as taught by Hayes, for controlling the operation of the force-exerting cylinder as disclosed by Thurner, in order to operate the force-exerting cylinder with high efficiency and greater reliability.

Regarding the claims as being drawn to a method of ensuring that the sprayable material is supplied to the emitter at a sufficient pressure, the apparatus as shown by Thurner and modified by Hayes, as discussed above, is capable of performing the method or steps recited in the claims.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US patents to Drane et al., Pax, Sankaran et al., and Hairy et al. disclose die-casting lubricating systems and/or methods of lubricating die casting molds.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Darren W Gorman whose telephone number is 703-306-4205. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Mar can be reached on 703-308-2087. The fax phone numbers for the

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organization where this application or proceeding is assigned are 703-872-9302 for regular communications and 703-872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0861.

Darren W Gorman
Examiner
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DWG 7/22/03
DWG
July 22, 2003

Michael Mar
MICHAEL MAR 7-23-03
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700